

REMARKS

Reconsideration of the above-identified application is respectfully requested.

In the Official Action dated January 14, 2005, which has been made FINAL, the Examiner rejected Claims 1, 2, 5, 6, 8 13, 33, 34, 37-38, 40 and 45 under 35 U.S.C. §103(a) as allegedly anticipated by U.S. Patent No. 5,481,741 to McKaskle et al. ("McKaskle") in view of U.S. Patent No. 6,701,523 to Baily ("Baily"). The Examiner further rejected Claims 3, 4, 7, 9, 14-26, 29, 35-36, 39, 41, and 46-48 as allegedly unpatentable over McKaskle in view of Baily and in further view of U.S. Patent No. 6,138,150 to Nichols et al. ("Nichols"). Further Claims 11-12 and 43-44 were rejected as allegedly obvious in view of the combination of the McKaskle and Baily references in further view of U.S. Patent No. 6,3291800 to Mayhew et al. ("Mayhew"). Further Claims 27-28 and 30-32 were rejected as allegedly obvious in view of the combination of the McKaskle, Baily, Nichols and Mayhew references.

With respect to the rejection of Claims 1, 2, 5, 6, 8, 11-13, 27-28, 30-33, 34, 37-38, 40 and 43-45 under the various rejections under 35 U.S.C. 103(a), applicant respectfully disagrees in view of the amendments provided herein.

Particularly, Claims 1, 8 and 11 are being canceled and the subject matter thereof is now recited in amended Claim 12 now set forth in independent form. Likewise, Claims 17, 24 and 27 are being canceled and the subject matter thereof is now set forth in amended Claim 28 now recast in independent form. Likewise, Claims 33, 40 and 43 are being canceled and the subject matter thereof is now set forth in amended Claim 44 now recast in independent form.

Applicant respectfully submits that new amended independent Claims 12, 28 and 44 now present patentable subject matter. Respectfully, no new matter is being entered and no new issues are being raised by these amendments as amended Claims 12, 28 and 44 recite subject matter of claims already searched and considered by the Examiner. Entry and

consideration of this amendment is respectfully requested in light of the newly cited Baily reference which has been first cited and applied by the Examiner in the present Final Rejection and consequently, a reference which the applicant had not been afforded an opportunity to comment on or distinguish.

Applicant respectfully submits that the new Claim 12 which is a combination of canceled Claims 1, 8 and 11 is neither taught nor suggested by the combination of the McKaskle, Baily and Mayhew references. New Claim 12 is directed to an automatic flowcharting method for diagrammatically representing a multi-nodal process comprising processing operations and decision operations. The method comprises the steps of:

(a) reading an input file including data representing a multi-nodal process arranged as a plurality of records, each of said plurality of records including a first processing operation, a second processing operation and a decision operation;

(b) converting processing operations and decision operations of said multi-nodal process from said input file into a data structure;

(c) analyzing said data structure for identifying a first group of processing operations that appear once in said data structure, and for identifying a second group of processing operations that are associated with two or more decision operations in said data structure;

(d) traversing said data structure to generate an ordered sequence of processing operations for visual representation; and

(e) generating a diagrammatic representation of said ordered sequence including orienting successive processing operations in a vertical dimension and associating attributes to each processing operation of said processing operations according to their identified group while offsetting each successive processing operation in a horizontal dimension relative to an

immediate prior processing operation, and linking each processing operation of said second group to a further processing step of said processing operations according to a decision operation of said two or more decision operations,

wherein the linking of each processing operation of said second group includes aligning said processing operation to a further processing step in said vertical dimension.

Respectfully, none of the cited references teach a combination of these features as claimed.

McKaskle, the Examiner alleges, teaches all of the limitations of canceled Claim 1 and cites Fig. 8(a), col. 14, lines 15-67 of McKaskle. Applicant fails to see the relevance of McKaskle generally, and fail to see the specific relevance of the teaching in McKaskle's Figure 8(a) and the cited passage. McKaskle generally relates to a graphical programming environment wherein a user manipulates icons in a block diagram using a block diagram editor to create a data flow "program" or virtual instrument (VI). The actual passage relied upon by the Examiner relates to the operation of a block diagram editor 30 used in the creation of the VI. More particularly, the block diagram editor constructs and displays a graphical diagram, i.e., a visual representation of a procedure by which a value for an input variable produces a value for one or more output variables (a process model). This is shown in Figure 7 and is actually what McKaskles refers to as a "block diagram" – see McKaskle at col. 11, lines 55-58 – and is not a flowchart of a multi-nodal process that comprises process operations and decision operations as set forth in amended Claims 12, 28 and 44. In fact, the block diagram editor generates machine language instructions that characterize an execution procedure which corresponds to the displayed procedure, i.e., McKaskle's "block diagram" which is "created by the user" (see McKaskle col. 11, lines 65-67). Figure 8(a) relied upon by the Examiner represents a data structure used in the representation of the virtual instrument and in no way teaches or suggests

the limitations of the data structure comprising a plurality of records, each of the plurality of records including a first processing operation, a second processing operation and a decision operation as now set forth in the amended independent claims. Moreover, McKaskle explicitly states that the “user need only construct an appropriate visual display or block diagram” to construct the execution instructions.

This, respectfully is antithetical to the present invention as claimed which is an automatic flowcharting method for diagrammatically representing a multi-nodal process comprising processing operations and decision operations from a plurality of data records, as claimed. In the present invention, a user does not create a “block diagram”.

Respectfully the teachings of the applied Baily relied upon by the Examiner at col. 37, lines 40-60 do not help in this regard as Baily does not teach the claimed limitation of reading an input file including data representing a multi-nodal process arranged as a plurality of records, each of said plurality of records including a first processing operation, a second processing operation and a decision operation. The cited passage of Baily, at best, teaches a program development environment that teaches the generation of program objects and related symbols, one of which may be created for the reading of text, data or arrays from a storage file in order to make information available as an “output”; or, the writing of text, data or arrays received... to a specified file. This is not the same as reading an input file comprising a plurality of records having data for use in automatically generating a flowchart for diagrammatically representing a multi-nodal process as claimed in the present invention.

Moreover, the Examiner’s reliance on McKaskle’s Figure 150B and the discussion at col. 64, lines 51-64 is misplaced. Figure 150B as indicated by the Examiner is directed to an example user created “block diagram” of a VI, however, the supporting text at col.

64, lines 51-64 provides no teaching or suggestion of the claimed limitations of associating attributes to each processing operation of said processing operations according to their identified groups. At best, this teaching is directed to attributing a color to true/false inputs in the example VI input boxes shown in Figure 150B. This is not the same as associating attributes to each processing operation of said processing operations according to their identified groups.

While the limitations of canceled Claims 11 and 12 had been rejected due to the teachings of Mayhew, this is respectfully traversed. While Mayhew may teach the graphical display of a set of procedures that may, at best, be represented in some form of vertical dimension, Mayhew does not teach or suggest generating a diagrammatic representation of said ordered sequence including orienting successive processing operations in a vertical dimension while offsetting each successive processing operation in a horizontal dimension relative to an immediate prior processing operation. Applicant respectfully is hard pressed to find this teaching in Mayhew at col. 3, lines 4-18 as relied upon by the Examiner. Moreover, applicant is hard pressed to find the teaching of linking each processing operation of said second group to a further processing step of said processing operations according to a decision operation of said two or more decision operations, wherein the linking of each processing operation of said second group includes aligning said processing operation to a further processing step in said vertical dimension. Mayhew, in fact, does not appear to treat or discuss any thing related to "decision" operations.

Thus, in sum, to highlight these distinctions, in McKaskle – a user has to create a block diagram using an editor program (block diagram editor 30) that enables user manipulations of icons representing controls and indicators to visually represent a data flow process generally having inputs and outputs. This is antithetical to the present invention. Baily is directed to a

visually-based program development environment and is not even remotely directed to automatic flow chart generation. Mayhew, teaches the visual representation of a software installation procedure and not a multi-nodal process having both processing and decision operations. Mayhew moreover describes use of a conventional flowchart generator that implements graphical icons- which teaches away from the present invention.

In light of the claim amendments and the foregoing remarks, applicants respectfully submit that the present invention as claimed in amended independent Claim 12 is clearly patentable over the cited combination of references –particularly McKaskle, Baily and Mayhew. The like amendments to Claims 28 and 44 and the foregoing remarks likewise render these independent claims patentably distinct over the cited combination of references – particularly McKaskle, Baily and Mayhew.

In view of the foregoing remarks herein, it is respectfully submitted that this application is in condition for allowance. Accordingly, it is respectfully requested that this application be allowed and a Notice of Allowance be issued. If the Examiner believes that a telephone conference with the Applicants' attorneys would be advantageous to the disposition of this case, the Examiner is requested to telephone the undersigned, Applicants' attorney, at the following telephone number: (516) 742-4343.

Respectfully submitted,



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